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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,282	07/08/2003	William E. MOERNER	12665.0029.NPUS01	1281
23369	7590	01/09/2006	EXAMINER	
HOWREY LLP C/O IP DOCKETING DEPARTMENT 2941 FAIRVIEW PARK DRIVE, SUITE 200 FALLS CHURCH, VA 22042-7195			HAQ, SHAFIQUL	
			ART UNIT	PAPER NUMBER
			1641	

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/604,282		MOERNER ET AL.	
	Examiner		Art Unit	
	Shafiqul Haq		1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5,8,10,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-5,8,10,12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/27/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendments filed October 06, 2005 is acknowledged and entered.
2. Claims 1-2, 6-7, 9, 11 and 14-40 have been cancelled. Accordingly claims 3-5, 8, 10 and 12-13 are pending and are examined on merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3-5, 8, 10 and 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Although specific claims may be discussed in the rejections below, these rejections are also applicable to all other claims in which the noted problems/language occur.
4. Claim 3 recites the phrase "D is a donor group comprising an oxygen atom". The structural composition of the donor group is unclear. It is not clear whether oxygen of the donor group acts as a donor atom here (i.e. oxygen atom of donor group directly links to A) and if it does, the valency is incorrect. Claim 1 also recites the phrase "A is a moiety having at least one multiple bond". The structural

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composition and types of bond of A is not clear and it is also unclear the nature of linkage of A with the donor group D.

5. Claim 4 recites the phrase "D is a donor group comprising a sulfur atom". The structural composition of the donor group is unclear. It is not clear whether sulfur of the donor group acts as a donor atom here (i.e. sulfur atom of the donor group directly links to A) and if it does, the valency is incorrect. Claim 1 also recites the phrase "A is a moiety having at least one multiple bond". The structural composition and types of bond of A is not clear and it is also unclear the nature of linkage of A with the donor group D.
6. Claim 5 recites the phrase "D is a donor group comprising a phosphorous atom". The structural composition of the donor group is unclear. It is not clear whether phosphorous of the donor group acts as a donor atom here (i.e. phosphorous atom of the donor group directly links to A) and if it does, the valency is incorrect. Claim 1 also recites the phrase "A is a moiety having at least one multiple bond". The structural composition and types of bond of A is not clear and it is also unclear the nature of linkage of A with the donor group D.
7. Claims 8, 10, 12 and 13 recites the phrase "D is a donor group having at least one free electron pair". The structural composition of the donor group is unclear and it is also not clear A links directly to what atom of the donor group that furnishes the free electron pair.
8. Claims 12, 13 and 14 also recites the phrase "A is a moiety having at least one multiple bond conjugated with donor group". The structural composition and

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types of bond of A is not clear and it is also unclear the nature of linkage of A with the donor group D.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 12 and 13 are rejected under 35 U.S.C. 102(a) as being anticipated by Hou et al. (Hou et al. Applied Physics Letters 2003, Vol. 82, No.20, pages 3385-3387).

Hou et al. disclose a compound (See Fig.1 and Table1) which anticipates the instantly claimed invention wherein in present application R1-R4 =alkyl, A = a moiety having at least one multiple bond, D=donor group having at least one free electron pair.

Therefore, the reference is deemed to anticipate the cited claims.

11. Claims 8, 12 and 13 are rejected under 35 U.S.C. 102(a) as being anticipated by Zhang et al. (US 6,348,992).

Zhang et al. disclose compounds which anticipates the instantly claimed invention wherein in present application R1-R4 =alkyl or fluoroalkyl, A = a moiety having at least one multiple bond (claims 12 and 13) or A= thiophene (claim 8); D= donor group having at least one free electron pair (claims 8, 12 and 13). As

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for example, for claim 8, compare with compound of fig. 10 (bottom) wherein A comprises thiophene and for claims 12 and 13, compare with compounds of fig.2 (bottom) and fig.4 wherein A= a moiety having at least one multiple bond and D= group having at least one free electron.

Therefore, the reference is deemed to anticipate the cited claims.

Response to Applicant's argument

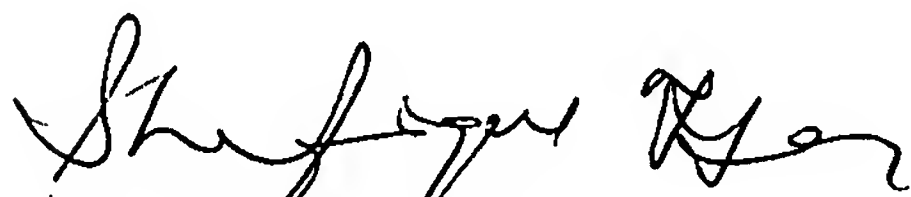
12. Applicant's arguments filed 10/6/05 have been fully considered, however, a further search necessitated a new ground of rejection under 35 USC §102.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shafiqul Haq whose telephone number is 571-272-6103. The examiner can normally be reached on 7:30AM-4:00PM.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

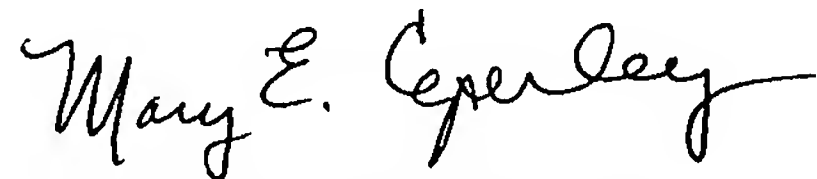
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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